The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

## UNITED STATES PATENT AND TRADEMARK OFFICE

# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte DAVID R. WALT and TODD A. DICKINSON

Application No. 08/944,850

ON BRIEF

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U.S. PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

Before KRASS, OWENS, and DIXON, **Administrative Patent Judges**. DIXON, **Administrative Patent Judge**.

#### **DECISION ON APPEAL**

This is a decision on appeal from the examiner's final rejection of claims 39-48, which are all of the claims pending in this application.

We REVERSE.

## **BACKGROUND**

Appellants' invention relates to a self-encoding fiber optic sensor. An understanding of the invention can be derived from a reading of exemplary claim 39, which is reproduced below.

- 39. An assay method comprising:
  - a) providing a sensor array comprising:
    - i) a first subpopulation comprising first sensor element, and
    - ii) a second subpopulation comprising second sensor elements;
- b) adding a sample comprising a first target analyte that binds to said first sensor elements;
  - c) measuring
- i) a first fluorescent signal of a first of said first sensor elements; and
- ii) a second fluorescent signal of a second of said first sensor elements; and
  - d) summing said first and second fluorescent signals.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Pinkel et al. (Pinkel) 5,690,894 Nov. 25, 1997 (filed May 23, 1995)

Lough et al. (Lough) 5,900,481 May 4, 1999 (filed Nov. 6, 1996)

Claims 39, 40, 43-45, 47, and 48 stand rejected under 35 U.S.C. § 102 as anticipated by Pinkel. Claim 46 stands rejected under 35 U.S.C. § 103 as being unpatentable over Pinkel. Claims 41 and 42 stand rejected under 35 U.S.C. § 103 as being unpatentable over Pinkel in view of Lough.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the answer (mailed Dec. 02, 2003) for the examiner's reasoning in support of the rejections, and to the brief (filed Aug. 22, 2003) and reply brief (filed Feb. 02, 2004) for appellants' arguments thereagainst.

#### **OPINION**

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we make the determinations which follow.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Verdegaal Bros. Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053

(Fed. Cir.), cert. denied, 484 U.S. 827 (1987). The inquiry as to whether a reference anticipates a claim must focus on what subject matter is encompassed by the claim and what subject matter is described by the reference. As set forth by the court in Kalman

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v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984), it is only necessary for the claims to "read on' something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or 'fully met' by it." While all elements of the claimed invention must appear in a single reference, additional references may be used to interpret the anticipating reference and to shed light on its meaning, particularly to those skilled in the art at the relevant time. See Studiengesellschaft Kohle v. Dart Indus., Inc., 726 F.2d 724, 726-727, 220 USPQ 841, 842-843 (Fed. Cir. 1984).

Appellants argue that Pinkel does not teach each and every element of the invention recited in independent claim 39. Appellants argue that there is no teaching of summing the measured signal from the first element of a first population of sensor elements and a second element of the first population of sensor elements. (Brief at page 8 and Reply brief at page 2.) The examiner maintains that Pinkel teaches summing the fluorescence signals at column 9. We have reviewed the cited teachings and cannot agree with the examiner that this is an express or implied teaching that the two signals are summed with respect to a target analyte. While Pinkel teaches that a single photomultiplier or CCD may be arranged to measure the aggregate signal provided by the entire transmission face of the biosensor, we cannot find that this expressly teaches or would have inherently taught summing two signals. Similarly, the use of a camera or CCD to read the face of the biosensor does not expressly or

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elements does not expressly or inherently teach summing two signals. Therefore, we agree with appellants that Pinkel does not teach all of the elements recited in independent claim 39 and its dependent claims. The examiner has also set forth rejections based upon 35 U.S.C. § 103 over Pinkel alone and Pinkel in view of Lough. The examiner has not shown or set forth a line of reasoning in these rejections which remedy the noted deficiency above. Therefore, we cannot sustain the rejection of claims 41, 42, and 46.

## CONCLUSION

To summarize, the decision of the examiner to reject claims 39, 40, 43-45, 47, and 48 under 35 U.S.C. § 102 is REVERSED, and the decision of the examiner to reject claims 41, 42, and 46 under 35 U.S.C. § 103 is REVERSED.

# **REVERSED**

Administrative Patent Judge

TERRY J. OWENS

Administrative Patent Judge

JOSEPH L. DIXON

Administrative Patent Judge

**BOARD OF PATENT** 

**APPEALS** 

AND **INTERFERENCES** 

JD/rwk

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